

REMARKS

The Examiner is thanked for the careful examination of the application. However, in view of the foregoing amendments and the remarks that follow, the Examiner is respectfully urged to reconsider and withdraw the outstanding rejections. By the foregoing amendments the two independent claims, claims 1 and 11, have been amended. The amendments provide even further distinctions between the claimed invention and the applied prior art.

Claims 1-3 and 6-10 have been rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Aruga in view of Lorenz. With regard to this rejection, the Examiner's attention is directed to the remarks submitted in this application on June 23, 2004. Those remarks are incorporated herein by reference and will only be summarized in order to avoid unnecessary duplication.

The Examiner alleges that the combination of Lorenz and Aruga is proper because both references deal with conveying lines for substrates within a sealed system. However, Applicant again submits that at least for purposes of the current rejection, Aruga and Lorenz are not analogous. The Examiner's broad conclusion that since they both deal with conveying lines for substrates within a sealed system that they are analogous is too broad. Specifically, under the test used by the Examiner, the Examiner could use hindsight to pick and choose among any of a plurality of elements in a large number of references. However, the law requires that there be some motivation or suggestion for making a combination. The Examiner alleges that it would have been obvious to one of ordinary skill in the art to provide the system taught by Aruga with multiple conveying paths as taught by Lorenz in order to maximize the output of the process facility by always having a substrate

available for processing on one of the carry lines. However, although this is the object of Lorenz, placing a "buffer" conveyor line in Aruga, as suggested by Lorenz, would still not arrive at the present invention, especially as is now claimed.

Specifically, claim 1 has been amended to clarify that the outward carry line extends from a first position at a first side of the device to an inversion position within the device, and the return carry line extends from the inversion position to a second position at the first side of the device. Claim 1 further defines that at least one of the second outward carry line extends from the first position to the inversion position within the device and a second return carry line from the inversion position to the first side of the device wherein each of the carry lines has a different path.

As forth in the specification of the present application, the present invention enables the substrates to be loaded and removed from the same side of the device, which can be very convenient for a substrate processing device wherein the processing chambers are longitudinally provided. See paragraphs 13 and 14 of the application as filed.

Furthermore, as set forth in the remarks filed on June 23, 2004, the conveying system of Lorenz includes a plurality of parallel conveyors 5 which run parallel to each other in an opposite direction in the first conveying system. The secondary conveying systems 3 branch off from the conveyors 5 of the primary conveying system 1 and extend toward but do not travel through the various processing centers 2. The purpose of using the parallel conveyors in Lorenz is to provide a buffer in which the cassettes that are not being used can be stored. However, in Aruga, the conveying carriers 3 extend along a traveled path 30 that extends through the

vacuum processing chambers, while in Lorenz, the buffer conveyors are outside of the processing chambers.

In summary, there is no teaching or suggestion in Lorenz to modify Aruga to provide the second carry line that enables the substrate to be returned to the same side of the device to facilitate processing as now defined in the claims.

Accordingly, in view of the foregoing amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-3 and 6-10 based on the combination of Aruga and Lorenz.

Claims 11-15 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Takahashi in view of Lorenz. Again, the Examiner is respectfully urged to review the arguments submitted on June 23, 2004, and such arguments are incorporated herein by reference. In order to avoid unnecessary duplication, the arguments will not be repeated herein in the entirety.

In summary, it would not have been obvious to modify the apparatus disclosed in Takahashi in view of Lorenz because Lorenz is directed to non-analogous art. One skilled in the art would not have looked toward the disclosure in Lorenz to provide guidance in modifying the apparatus disclosed in Takahashi because Takahashi is directed to a conveyor belt system that travels through vacuum processing chambers while Lorenz is directed to an apparatus having conveyors operating outside the processing centers. Also, Lorenz's secondary conveying system 3 does not travel through processing chambers, but only leads up to the processing centers 2. Thus, there would have been no motivation to look toward Lorenz for guidance in modifying a conveyor system for conveying substrates through vacuum processing chambers as disclosed in Takahashi.

Furthermore, as set forth above with respect to claim 1, similar amendments have been to claim 11, wherein the device is now defined as including an outward carry line that extends from a first position at a first side of the device to an inversion position within the device and a return carry line from the inversion position to a second position at the first side of the device. Thus, the device as set forth in claim 11 enables the substrate to be loaded and unloaded from the same side of the device, which is convenient, particularly when the substrate processing device includes a plurality of vacuum processing chambers that are longitudinally provided to each other.

In view of the foregoing amendments and remarks, the Examiner is respectfully urged to reconsider and withdraw the outstanding rejections of claims 11-15.

In the event that there are any questions concerning this amendment, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

Date: December 27, 2004

By: 
William C. Rowland
Registration No. 30,888

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620